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# Rhubarb Production



# RHUBARB PRODUCTION

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## History and Importance

Rhubarb, often referred to as pieplant, is thought to be a native of southern Siberia. It was introduced into the United States late in the eighteenth century and soon became a popular garden vegetable. Although it is not considered an important vegetable crop, the aggregate acreage of rhubarb in market and truck gardens is large, and it is common to find fields of 20 acres or more in some sections. Rhubarb is one of the most popular home-garden perennials and is found in a great many gardens in regions adapted to its culture.

## Climatic Adaptation

Rhubarb is a cool-weather plant that thrives only in regions where the winters are sufficiently cold to freeze the ground to a depth of at least 3 or 4 inches. It is not adapted to regions of low elevation much south of the latitude of Washington, D. C., but in mountainous sections its culture is successful somewhat farther south. Attempts to grow rhubarb in the lower South almost invariably end in disappointment. The New England States, the region bordering the Great Lakes, the northern Great Plains States, and the Pacific Northwest are especially adapted to rhubarb culture, and in these regions it grows to perfection.

## Poisonous Qualities of Rhubarb Leaves

The succulent acid leafstalks of rhubarb make most excellent sauces and pies, and the question often arises about the use of the leaf blades for greens. Numerous cases of more or less serious illness and some fatalities have been reported in both Europe and North America from eating rhubarb leaves. These leaf blades were eaten boiled in the belief that they were a suitable substitute for the common greens but *owing to the high content of oxalic acid and its soluble salts found in rhubarb leaves it is recommended that they be left entirely alone and not used under any circumstances as food.* In the stalks, however, the oxalic acid is present in smaller amount and largely in insoluble form, and for this reason is harmless.

## Soil, Fertilizer, and Manure

Rhubarb will thrive on almost any type of soil from peat or sand to heavy clay, provided it is well drained; rhubarb grows best, however, on deep, fertile loams that are well supplied with organic matter. The plant is tolerant to soil acidity and does best on a slightly to medium acid soil. If the crop is to be grown for the early market a light sandy loam with a southern exposure should be selected.



## Planting

The seed is usually sown in rows in the field, but occasionally it is sown in hot beds or coldframes, and the plants are transplanted to the field. The rows in the field should be a suitable distance apart for the cultural methods to be followed; that is, if horse cultivation is to be practiced, the rows should be at least 28 inches apart, but if the plot is to be hand-cultivated they need not be more than 16 to 18 inches apart. When beets are sown in rows wide enough for cultivation by horse-drawn tools, about 6 pounds of seed is required for each acre, or about 1 ounce of seed for each 150 feet of row. The seed may be sown by hand or by the use of a special seed drill, and owing to the roughness and irregularity of beet seed it is necessary to use a force-feed drill that will insure an even distribution of the seed. The seed is usually covered to a depth of  $\frac{1}{2}$  to 1 inch, depending on the texture of the soil. As a rule, on light soils the seed may be covered deeper than would be desirable on heavy soils.

As beet seed is rather slow in germinating, the practice of sowing some other seed along with the beet seed is sometimes followed. The other plants then serve as markers of the rows before the beets are up, making it possible to cultivate before the beets show above ground. Radishes are very frequently used for this purpose. Owing to the fact that beet seed is in balls or clusters and that it is difficult to get uniform distribution in the rows, it is nearly always necessary to thin the crop as soon as the plants are 2 or 3 inches in height. The distance between plants must be determined to some extent by the variety used but for most strains will be from 3 to 4 inches.

When the transplanting method is followed, the seed is sown in rows about 3 inches apart in the coldframe or hotbed, and as soon as the plants are about 3 inches high or are showing their true leaves, they are transplanted to the field. As this method involves a large amount of hand labor, it is not often adopted.

## Cultivation

The cultivation required for garden beets is similar to that for most other small crops, such as onions, lettuce, carrots, etc. Owing to the fact that the young plants are easily injured by having clods rolled on them by the cultivating tools, it is essential that extreme care be taken during the first two or three cultivations. For the first cultivation most growers use a wheel hoe with small attachments. After the plants attain some size, heavier tools can be used. Where horse cultivation is used cultivators having a large number of small teeth are employed.

## Harvesting, Marketing, and Storing

When beets are grown for sale in the early markets, they are usually pulled when  $1\frac{1}{2}$  to  $2\frac{1}{2}$  inches in diameter, tied in bunches of from four to six, and the bunches packed in crates. Some growers make a practice of washing the beets before or after bunching them, and this lends attractiveness to the product. If the beets are to be

placed in the hands of the customer in first-class condition, it is necessary that they be marketed in as short a time as possible after being harvested. Where table beets are shipped considerable distances they are packed in crates with about 30 pounds of "snow", or finely crushed ice, in each crate and transported in refrigerator cars. United States marketing standards for both bunched beets and topped beets have been prepared and copies can be secured by writing to the Bureau of Agricultural Economics, United States Department of Agriculture, Washington, D. C.

Directions for the storing of beets are to be found in Farmers' Bulletin 879, *The Home Storage of Vegetables*. Beets grown for winter storage are allowed to remain in the field until just before hard fall frosts occur. Then they are pulled and topped, leaving about one-half inch of the leaf stems, and are stored in banks, pits, or cool cellars. The proper storage temperature for beets is about 38° or 40° F.

### Mangels

Large-growing types of beets, known as mangels or mangel-wurzels, are often used for stock-feeding purposes. The culture of mangels is similar to that of table beets except that, owing to their large size (individual specimens often weighing 10 or more pounds) they should be planted in rows at least 30 inches apart and the plants thinned to 10 or 12 inches apart in the rows. On account of the great length of mangels, the soil should be prepared to a depth of at least 10 or 12 inches. Golden Tankard, Danish Sludstrup, Giant Half Sugar, Mammoth Long Red, and Leviathan are among the varieties most commonly grown.

The crop is harvested and stored in cellars or banks and used throughout the winter for stock and poultry feed. These large coarse beets are undesirable as human food.